

1. A method of setting the length of the play-out buffer in a gateway when the gateway switches from audio mode to voice band data (VBD) mode, said method including,  
detecting the previous length of the play-out buffer in the previous audio mode,  
5 adding a dilation factor to said previous length to obtain a new length, and  
setting said payout buffer to said new length.
2. A system for setting the length of the play-out buffer in a gateway when the gateway switches from audio mode to voice band data (VBD) mode, said method  
10 including,  
means for detecting the previous length of the play-out buffer in the previous audio mode,  
means for adding a dilation factor to said previous length to obtain a new length,  
and  
15 means for setting said payout buffer to said new length.
3. The method recited in claim 1 wherein the length of said play-out buffer in audio mode is set adaptively.
- 20 4. The system recited in claim 2 wherein the length of said play-out buffer in audio mode is set adaptively.
5. The method recited in claim 1 wherein audio concealment techniques are used to fill any gaps caused by the change in length of the play-out buffer.  
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6. The system recited in claim 2 wherein audio concealment techniques are used to fill any gaps caused by the change in length of the play-out buffer.
7. The method recited in claim 1 wherein said switch from audio mode to VBD  
30 mode occurs when a first client places a call to a second client and said second client generates an answer tone.

8. The system recited in claim 2 wherein said switch from audio mode to VBD mode occurs when a first client places a call to a second client and said second client generates an answer tone.

5 9. The method recited in claim 3 wherein audio concealment techniques are used to fill any gaps caused by the change in length of the play-out buffer.

10. The system recited in claim 4 wherein audio concealment techniques are used to fill any gaps caused by the change in length of the play-out buffer.

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11. The method recited in claim 7 wherein said gateway detects said answer tone and therefore initiates a switch from audio mode to VBD mode.

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12. The system recited in claim 8 wherein said gateway detects said answer tone and therefore initiates a switch from audio mode to VBD mode.

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13. A method of operating a gateway when a first client places a call to a second client in audio mode, causing said second client to generate an answer tone, and said gateway detecting said answer tone causing said gateway to switch to Voice Band Data (VBD) mode, said method including, detecting the previous length of the play-out buffer in the previous audio mode, adding a dilation factor to said previous length to obtain a new length, and switching said gateway from audio mode to VBD mode with said payout buffer set to said new length.

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14. A system operable a gateway when a first client places a call to a second client in audio mode, causing said second client to generate an answer tone, and said gateway detecting said answer tone causing said gateway to switch to Voice Band Data (VBD) mode, said method including,

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means for detecting the previous length of the play-out buffer in the previous audio mode,

means for adding a dilation factor to said previous length to obtain a new length, and

means for switching said gateway from audio mode to VBD mode with said payout buffer set to said new length.

15. The method recited in claim 13 wherein the length of said play-out buffer in  
5 audio mode is set adaptively.

16. The system recited in claim 14 wherein the length of said play-out buffer in audio mode is set adaptively.

10 17. The method recited in claim 13 wherein audio concealment techniques are used to fill any gaps caused by the change in length of the play-out buffer.

18. The system recited in claim 14 wherein audio concealment techniques are used to fill any gaps caused by the change in length of the play-out buffer.

15 19. The method recited in claim 15 wherein audio concealment techniques are used to fill any gaps caused by the change in length of the play-out buffer.

20 20. The system recited in claim 16 wherein audio concealment techniques are used to fill any gaps caused by the change in length of the play-out buffer.